

The George Washington Carver award presented annually at the BIO World Congress on Industrial Biotechnology and Bioprocessing honors the original vision of George Washington Carver who, over a century ago, achieved world renown by using agriculture and science to produce everyday products, changing the nature of farm economics and sustainability. Carver was an originator of the "chemurgy" movement and devoted his career to teaching sustainable farming, which for him included developing new uses of agricultural products that could boost farm profits. To help farmers adopt sustainable practices, Carver and his students developed more than 300 industrial uses for peanuts, sweet potatoes, and other crops that could be grown in rotation with cotton and corn. Carver's inventions included plastics, glue, soaps, paints, dyes for cloth and leather, medicines and cosmetic ingredients made from peanuts, sweet potatoes, or other crops and agricultural residues. Accompanying the award will be a George Washington Carver scholarship given in the name of the recipient.

Today, companies are using industrial biotechnology to manufacture plastics, chemicals, pharmaceuticals, and even food ingredients from renewable agricultural resources. The George Washington Carver Award will honor individuals in the private sector, government or academia who have worked toward the important goal of using industrial biotechnology innovation to develop sustainable bio-based value-chains.

BIO presented the first annual George Washington Carver Award in 2008 to Dr. Patrick Gruber, CEO, Gevo, Inc., recognizing his accomplishments in creating and commercializing a new plastic made from annually renewable resources. As vice president and chief technology officer of Cargill Dow LLC/NatureWorks from 1997 to 2005, Gruber spearheaded the market introduction of NatureWorks™ PLA and Ingeo™ fibers. He oversaw the construction and launch in 2000 of the first large-scale manufacturing facility for a material developed from 100 percent annually renewable resources. He led the company's efforts of continual process and technology improvement, making NatureWorks™ PLA a major influence in the global plastic and fibers markets.

In 2009, BIO presented the award to DuPont Chairman of the Board Charles O. Holliday, Jr., recognizing his commitment to industrial biotechnology as a tool for sustainable business growth. During Holliday's tenure as CEO, DuPont invested in biology-based businesses and infused them with its chemistry know-how. For instance, DuPont partnered with sugar processor Tate & Lyle to manufacture 1,3 propanediol, a polyester ingredient made by fermenting sugar. That venture led the company to think about applying its fermentation expertise to making renewable fuels and chemicals in a biorefinery.

In 2010, the award was given to Dr. Greg Stephanopoulos of MIT. Dr. Greg Stephanopoulos is currently Bayer Professor of Chemical Engineering at MIT. He has developed processes integrating highly engineered microbes in industrial settings to produce amino acids, such as lysine and isoleucine; indandiol, an essential precursor of the AIDS drug Crixivan; and important diterpenes, such as lycopene and taxadiene, a precursor to the cancer drug taxol. His current work focuses on engineering a microbe for cost-effective production of oil and biodiesel.

In 2011, the award was given to Feike Sijbesma of Royal DSM NV. Feike Sijbesma studied Medical Biology at the University of Utrecht and Business Administration at Erasmus University

in Rotterdam. In 1987, he joined the Industrial Pharmaceuticals Division of Gist-brocades NV, where he was responsible for strategic planning and business development. From 1990 to 1993, he was appointed the division's marketing and sales director. Thereafter, he was given leadership of savory ingredients, later on a business unit of Gist-brocades' Food Specialties Division. In 1995, he was made director of that division and joined the Gist-brocades' Executive Committee. Following the acquisition by Royal DSM NV in 1998, he became the director of the business group DSM Food Specialties. In 2000, Feike joined DSM's Managing Board of Directors. He became CEO and Chairman of the Managing Board of Royal DSM NV on May 1, 2007.